BEGIN WITH OUR CHILDREN

A REPORT TO THE MINISTER OF EDUCATION

ON

PHYSICAL ACTIVITY

IN

NOVA SCOTIA SCHOOLS

HALIFAX, NOVA SCOTIA

JUNE 20, 1983

DEPARTMENT OF EDUCATION
NOVA SCOTIA

May 20, 1983

The Honorable Terence R. B. Donahoe, Q.C.
Minister of Education
Province of Nova Scotia
Halifax, Nova Scotia

Dear Mr. Donahoe:

In accordance with the instructions in your letter of November 30, 1981, we, the undersigned, have made a study of the practicability and feasibility of implementing a daily physical education opportunity for all pupils in the public school system.

We are very pleased to present to you the "Begin With Our Children, A Report to the Minister of Education, on Physical Activity in Nova Scotia Schools".

Yours very truly,

Mr. Hector Campbell

Mr. Richard Crooks

Mrs. Hilda Douglas

Mr. Marvin Harvey

Mrs. Eva Landry

Mr. Jim MacDonald (Chairman)

Mr. Jon Margeson

Dr. Hugh A. Noble

Dr. John Savage

Dr. Norm Watts

Dr. Barry Wheeler

ENDORSEMENTS

The Medical Society of Nova Scotia

December 7, 1982

TO WHOM IT MAY CONCERN:

The Medical Society of Nova Scotia strongly supports the concept that energetic physical activity should be part of the lives of all Nova Scotians. For some years it has become increasingly obvious that many diseases which adversely affect our health are caused at least in part, by lack of exercise. These include coronary heart disease, arteriosclerosis, obesity, diabetes, and other related diseases.

Modern living has produced so many conveniences that it is no longer necessary to do hard physical work to make a living, or to do our normal household jobs. In addition to this, our children remain sedentary in school most of the day.

It is considered absolutely essential that our children be raised in the belief that exercise is part of a normal life and that daily exercise is essential to their future well being and good health.

The Medical Society strongly supports the concept of daily physical activity in the schools of Nova Scotia.

E.V. Rafuse, M.D.
President

EVR:sal

PHONE: 425-5450

Nova Scotia School Athletic Federation

5516 SPRING GARDEN ROAD, P.O. BOX 3010-S, HALIFAX, N.S. B3J 3G6

MEMBER C.S.S.F.
AFFILIATE N.F.S.H.S.A.
ASSOCIATE S.N.S.

February 4, 1983

BOARD OF GOVERNORS
Frank Smith — Chairman
Charles Dolan
Arnold Farrell
Gerald Giddens
Marvin Harvey
James MacDougall
Connie MacNeil
Joe Metz
Lloyd Sutherland

REGIONAL DIRECTORS

Highland
Ian Lovett
Memorial High School
Box 300
Sydney Mines
Phone 736-6233

Northumberland
George Manos
Memorial Jr. High
New Glasgow, N.S.
Phone: 752-8932

Capital
Jim MacVicar
Ellenvale Jr. High School
88 Bellevista Drive
Dartmouth, Nova Scotia
Phone: 421-2424

Western
Peter Goucher
Horton District High School
R.R. No. 2, Wolfville, N.S.
Phone: 542-2261

EXECUTIVE DIRECTOR
Ron O'Flaherty
P.O. Box 3010 S
5516 Spring Garden Rd.
Halifax, Nova Scotia
Phone: 425-5450

To Whom It May Concern:

The Nova Scotia School Athletic Federation enthusiastically endorses the concept that daily physical activity should become a part of school life for all students in our province.

The public school system has for years recognized the need to educate the whole individual and the acceptance and promotion of daily physical activity will unquestionably contribute to that objective.

Sincerely,

H.F. Smith
Chairman

R. P. O'Flaherty
Executive Director

/js

Nova Scotia School Boards Association

1888 Brunswick Street, Suite 810
Halifax, Nova Scotia B3J 3J8
(902) 423-6461, 423-8502

1221 BARRINGTON STREET, SUITE 200
HALIFAX, NOVA SCOTIA B3J 1Y2
(902) 423-6461, 423-8502

19 May, 1983

1800/3/5/14/8

Jim MacDougall, Chairman
Task Force on Physical Education
Curriculum Development
N. S. Department of Education
P. O. Box 578
Halifax, N. S.
B3J 2S9

Dear Jim:

I am pleased to report that the question of daily physical activity in Nova Scotia schools was considered at the first meeting of the new NSSBA Executive.

A motion was passed endorsing the principle of daily physical education in Nova Scotia schools, with implementationto be the responsibility of individual school boards.

Questions with regard to the specifics of daily physical activity in school could easily arise. For example, would it be taught by the classroom teacher or by a specialist? Would it be short but frequent periods of activity for young children rather than formal scheduling of periods in the gymnasium? Other questions could be asked. We await the results of the Report of your Task Force in order to see the specific recommendations which you have submitted.

In the meantime, the Nova Scotia School Boards Association appreciated the opportunity to have representation on the Task Force and supports the principle of daily opportunities for physical education in Nova Scotia's schools.

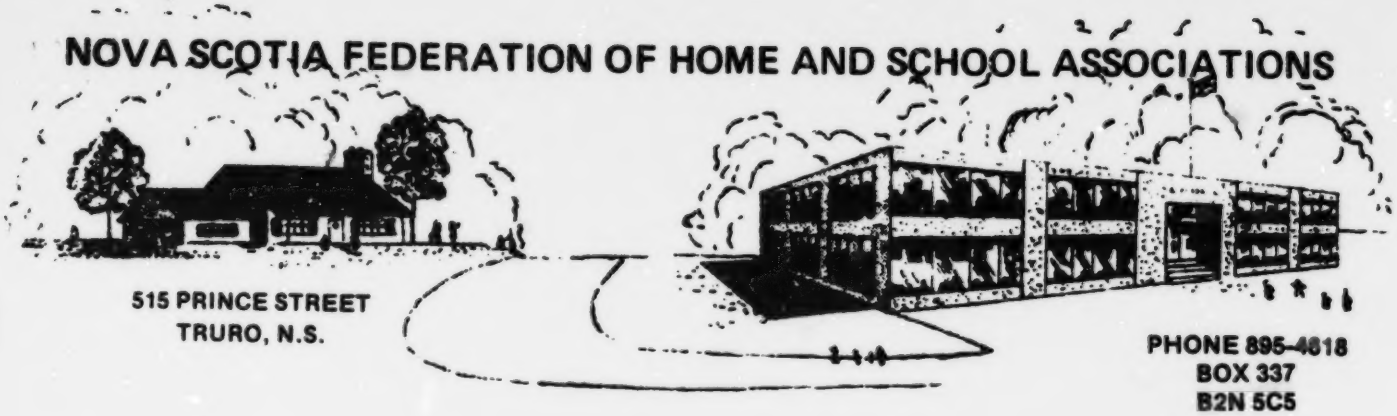
Sincerely,

Janet Carney

Janet Carney
Executive Director

JC/jb

NOVA SCOTIA FEDERATION OF HOME AND SCHOOL ASSOCIATIONS



515 PRINCE STREET
TRURO, N.S.

PHONE 895-4818
BOX 337
B2N 5C5

May 27,1983

Mr. James F. MacDougall,
Consultant Physical and Health Education,
N. S. Department of Education,
Box 578, Halifax, N.S. B3J 2S9

TO WHOM IT MAY CONCERN:

The Nova Scotia Federation of Home and School Associations enthusiastically endorses the concept that daily physical activity should become a part of school life for all students in our province.

For several years now Home and School in Nova Scotia has presented briefs to our government in support of this concept.

Yours truly,

Hilda Douglas

Mrs. Hilda Douglas,
President

HD/r

JUN 9 1983

R.R.#4 Antigonish,
Antigonish, N.S.
June 7, 1983

To Whom It May Concern:

As president of the Nova Scotia 4-H Leaders Council I want you to know that my organization endorses the concept of incorporating daily physical activity into the schools of Nova Scotia.

The fourth H in 4-H stands for health. As such we are keenly concerned about the physical condition of our youth.

When one considers the trends in our society today which affect young people,------ increased hours before the television set; Arcade rooms and the greater attraction towards computer games the necessity to increase the emphasis on physical activity in schools appears to be a logical and correct one.

Our children will become richer adults by implimenting the above named program in the near future.

Sincerely,
Sisca Bekkers
Sisca Bekkers
President, N.S. 4-H Leaders Council

CONTENTS

Letter

ENDORSEMENTS

INTRODUCTION.....1

THE REPORT

THE NEED FOR PHYSICAL ACTIVITY

Begin with Children.....4
Physical Fitness.....4
Physical Fitness Assessment.....5
Some Canadian Schools Have Made Changes.....5

A TARGET FOR NOVA SCOTIA SCHOOLS.....7

Daily Physical Activity.....7
Balance and Quality.....7
Total Fitness.....8
Enjoyment.....8
Adequate Time.....9
For All Children.....10

A PROVINCIAL INITIATIVE.....12

A Publicity Program.....12
Teacher Pre-Service and In-Service Programs.....12
Incentive Programs.....13
A Closing Comment.....14

IMPLEMENTING THIS REPORT.....15

RECOMMENDATIONS.....17

BIBLIOGRAPHY.....18

APPENDICES

A - Questionnaire
B - Questionnaire Responses

INTRODUCTION

In October, 1981, the Minister of Education, the Honourable Terence R. B. Donahoe, Q.C., established a task force to examine practicable ways of enhancing physical education opportunities for students in Nova Scotia schools.

The mandate of the task force was to review all aspects of existing physical education programs, and other related curriculum activities, in order to identify current practices and the level of student participation in school physical activity. The task force was also instructed to determine the possibility of providing greater student access to physical activity in schools; where feasible, the task force was to describe new directions which might accomplish this goal. The task force was to report its findings and recommendations to the Minister.

During the past twenty months, the eleven members of the task force met regularly to hear briefs submitted by interested parties, to discuss issues with experts in the field, and to visit schools to examine existing programs.

In addition, the Task Force gathered professional opinion from curriculum personnel, school administrators and teachers in several district boards by means of a field testing questionnaire. The questionnaire and responses can be found in Appendix A and Appendix B of this report.

The task force is indebted to the following people who made presentations or provided additional information, clarification or suggestions pertaining to daily physical activity:

Mrs. Norma Adams, Consultant, Physical Education, Dartmouth School Board
Mr. Larry Bent, Nova Scotia Teachers College, Truro, Nova Scotia
Dr. Phil Campagna, Co-ordinator Fitness Lab, Dalhousie University,
Mr. Tom Hanley, Physical and Health Consultant, Department of Education, New Brunswick,
Mr. Jim MacIntosh, Supervisor of Physical Education, Dartmouth School Board
Mr. Jim MacPherson, Robin Foote Elementary School, Westmount, Cape Breton
Mr. Duff Montgomerie, Co-ordinator of Sports, Department of Culture, Recreation and Fitness, Halifax, Nova Scotia
Dr. Gary Ness, Associate Professor of Recreation and Physical Education, Acadia University
Ms. Mary Sargeant and staff at Harbourview Elementary School, Dartmouth
Dr. Lorne Verabioff, Supervisor of Professional Pdreparation, Dalhousie University
Dr. Ted Welland, Supervisor of Physical Education, Halifax County-Bedford District School Board.

Demonstrating his personal interest, the Minister travelled to British Columbia and Alberta in October 1982 with the Task Force Chairman, James MacDougall, for an exchange of ideas on the implementation of daily physical education with educators in Western Canada.

The Minister, as well as the task force, was most appreciative of the contributions made by the following officials in British Columbia:

Ms. Barb Baker, School District #36 in Surrey, British Columbia
Ms. Arlene Burden, Consultant, Physical Education and Athletics, School District #39 in Vancouver, British Columbia
Mr. Al Fischer, Supervisor of Physical Education, School District #34 in Abbotsford, British Columbia.
Mr. Keith Gardiner, Supervisor of Physical Education, School District #33 in Chilliwack, British Columbia,
Ms. Kristina Knowles, Program Implementation Branch, Ministry of Education in Richmond, British Columbia,
Mr. George Longstaff, Supervisor of Physical Education, British Columbia, School District #43 in Coquitlam, British Columbia,
Dr. Peter Moody, School of Physical Education and Recreation, University of British Columbia
Mr. Barry Morley, School District #36 in Surrey, British Columbia
Ms. Donna O'Neill, School District in Surrey, British Columbia
Ms. Jane Sherrill, Supervisor of Physical Education, School District #44 in North Vancouver, British Columbia
Mr. Bob Taylor, Supervisor of Physical Education, School District #38 in in Richmond, British Columbia
Mr. Ed Silva-White, Supervisor of Physical Education, School District #41 in Burnaby, British Columbia
Mr. Lee Wright, School District #36 in Surrey, British Columbia.

Similarly, in Calgary, Mr. Donahoe and the task force received greatly appreciated assistance from:

Mrs. Rhoda DeVlaming and staff of Beddington Heights Elementary Scho
Mrs. Marg Elliott and staff of Bob Edwards Junior High School
Mr. Martin Lundmark and staff of Collingwood Elementary School
Mr. Jay Pritchard and staff of Hungtington Hills Elementary School
Mr. Walter Rogalski and staff of William Eberhart High School.

Special thanks must be given to Mr. Jim Appleby, Supervisor of Physical Education and Athletics, Vancouver School Board, and Mr. Don Williams, Supervisor of Physical Education, Calgary Board of Education, for arranging meetings and visits in Vancouver and Calgary.

EXPLANATORY NOTE CONCERNING USE OF CERTAIN TERMS

In this report, the term "physical education" refers to that area of a school curriculum which uses varied experiences, emphasizing physical activity, to contribute to a range of educational objectives. These objectives include learning physical skills, acquiring knowledge, developing affective skills, and attaining an appropriate level of personal fitness.

The term "physical activity program" refers to the physical education classes, intramural activities, fitness activities, the interschool sports program, and other such events that are planned, supervised and offered to the students in a given school. Many members of a school staff are involved in this program, not just those assigned to teaching physical education.

THE NEED FOR PHYSICAL ACTIVITY

Begin with Children

The age of technology is influencing the lifestyle of North Americans. Technological changes are apparent not only in the work-place, but also in the home and as mechanical devices and electronic equipment have become more common tools of the working person, physical activity has become a less significant aspect of the worker's day.

During leisure hours, people are spending increasing amounts of time engaged in sedentary and passive forms of recreation. Surveys have revealed that watching television is, by far, the most popular leisure activity of many North Americans. Canadians are devoting much of their time to sitting in front of a television set, and recent changes such as the introduction of pay television and the use of home video cassette recorders, will probably further likely increase the popularity of television viewing.

For too many adults, the only form of physical exercise in which they engage is a moderate amount of walking in order to carry out life's daily routines. This lack of attention to physical activity has had serious consequences for the health of an increasing number of Canadians. For example, many young adults are overweight and already show evidence of arteriosclerotic vascular disease. Heart disease is the leading contemporary health problem facing North American society, and evidence continues to point to individual lifestyle as the governing factor in the onset of this disease.

There is ample evidence to suggest that diseases of the cardiovascular system have their roots in early childhood (Rowland, 1981). The medical and surgical procedures necessary to correct the problems of the adult patient may be unnecessary if closer attention is paid to the lifestyle of the child.

Physical Fitness

Physical fitness is an important part of personal health since it is a measure of the capability of a person to respond to exercise. The fit person can react to an exercise load with less effort than an unfit person and can sustain activity for longer periods before fatigue limits performance. There are so many forms of exercise that it is often difficult to define fitness precisely. A person may be fit for one kind of muscular activity, yet he or she may not be considered fit for other types of exercise.

For the general population, the most appropriate definition of fitness is related to the efficiency of a person's cardio-respiratory system. This aspect of personal health can be readily measured in terms of the ability of the body to utilize oxygen during periods of exercise. Maximum oxygen uptake capacity (VO_2) is the reliable numerical estimate of fitness. There are, however, other parameters related to the state of fitness. These include a slower resting pulse rate, increased muscle mass, more muscle and liver glycogen, and augmented hemoglobin and blood volume.

Attaining physical fitness provides benefits in addition to good physical health. A regular physical activity program usually leads to feelings of enjoyment and relaxation which can, in turn, make positive contributions to one's mental health. This sense of well-being may be either psychological or

physiological, for reasons which are not yet clear. In addition, a physically fit appearance can have beneficial effects on one's relations with other people, as well as enhancing one's self-esteem. For many, the value of exercise is related to a need to participate in sport, and to look good and feel comfortable while doing so.

Physical Fitness Assessment

In the past ten to fifteen years, there have been many improvements in methods of assessing personal fitness. With the refinement of fitness testing, a number of researchers have attempted to describe the fitness levels of different populations. The most common method of testing has involved the use of a bicycle ergometer to estimate the physical work capacity of the body during a sub-maximal load. In Canada, the PWC-170[1] test has been used extensively, and age-related norms have been reported for adults and children. The results of some of these studies are reported below to provide an indication of the state of fitness among children and adults.

Dr. Don Bailey, University of Saskatchewan, has spent a number of years studying the Canadian population. His initial studies (Bailey, 1973), completed on a Western Canada sample, indicated that Canadians were rather unfit, a conclusion based on a comparion of his test results were compared with Scandinavian norms and the American Heart Association fitness classification of 1972. Although the fitness levels of both Canadian men and women were low, the age-sex category which scored the worst in comparison with recommended values was the group of women in the 20-29 year age range.

In a more recent study of cardiorespiratory fitness, Bailey et al. (1982) reported that there was a significant improvement in fitness for all age categories of both sexes, except 15 to 19-year-old males and females, when compared with the data of 1973. The teenage boys and girls in the 15-19 age range showed no change in fitness levels.

The results reported by Bailey and his associates do provide some reason to be optimistic about a modest change in lifestyles of Canadians; however, it is disturbing to note the lack of improvement in fitness levels among the upper teenage group, 15-19 years of age. If consistent improvement in the physical fitness levels of Canadians is our goal, we must begin the change with children. In previous studies of younger children, Bailey (1973) had reported that, for the ordinary Canadian child, physical fitness seemed to be a decreasing function of age from the time children enter school. Other earlier studies, such as Shepherd (1969), clearly demonstrated that Canadian children had a poor level of physical fitness.

Some Canadian Schools Have Made Changes

Schools have been able to find a variety of ways of implementing daily physical activity for students. Some elementary schools have enough indoor and outdoor facilities to schedule physical education classes more frequently each week, and supplement this with short activity sessions on the alternate days. Others have not been able to increase the time for physical education classes, but a regular program of other activities has provided daily

---

1 ThePWC-170 test measures the Physical Work Capacity at a heart rate of 170 beats per minute.

physical activity for the children. A variety of timetabling patterns are used in many other elementary schools to allow games periods, swimming sessions, or other activity times for the children.

In junior and senior high schools, the diversity of program alternatives is even more apparent. Some schools simply alter the timetable and the school day to increase the number of physical education classes for each student. For example, instead of having seven 40-minute periods per day, some schools now have eight 35-minute periods and still have sufficient time to complete the course of study, with no reported decline in academic standing. There are various other timetable patterns which have made it possible to offer physical education to more students in large secondary schools. Some school administrators have introduced semester systems to give more flexibility in the scheduling of high school students. Some Canadian schools offer an extensive intramural program and daily fitness activities which are also available to all students.

The members of the task force are convinced that every school should make a concentrated effort to move toward implementing daily physical activity opportunities for children. We realize that the goal is not an easy one to achieve but we also realize that every child will benefit from such an opportunity.

A TARGET FOR NOVA SCOTIA SCHOOLS

The task force has attempted to establish appropriate criteria for a successful physical activity program in a school. These criteria are presented in the form of a target (see page 10) which all schools should be striving to meet.

While it may not be possible for every school to meet all the criteria immediately, continued movement towards the target should ensure the development of worthwhile programs for children. This must be a continuous process, and one should not expect all schools to meet the criteria at the same time. While some schools may reach this target in one or two years, it may take others from three to five years to do so.

The criteria are described below.

Daily Physical Activity

If one major goal of a high quality school program is to develop regular habits of exercise, then a daily physical activity opportunity should be scheduled. Daily activity is particularly beneficial for young children who need physical activity for healthy growth and development. Educators recognize that movement experiences are an integral part of early childhood education.

In practice, however, it may not be possible for every school to schedule daily physical education classes for all students. School size, individual time-tabling, subject teaching, availability of facilities, and other factors often present challenges for school administrators who attempt to schedule daily classes. Where daily classes cannot be scheduled, the school must provide opportunities for supervised physical activity before school, during lunch break, after school and/or at other appropriate free times.

It is recognized that all parts of a student's day should not be structured and highly-organized, but it is possible to plan time and space, and provide leadership to help young people maintain a daily personal exercise program.

Balance and Quality

A sound school physical activity program must include a variety of activities to maintain high student motivation. A balanced program of activities should include games, dance, gymnastics, acquatics, and outdoor pursuits. Each part of the program should be carefully planned so that it is a high quality experience for the students; that is, it should actively promote the goals of physical education, as well as being enjoyable to the students.

To help in the development of such experiences for students, it is advisable to have a physical education resource teacher available to help plan and teach programs in every school. Classroom teachers must have direct assistance with certain aspects of the program if they have insufficient training and experience in these physical education areas.

A high quality program is essential if students are to have the best opportunity to develop basic skills and refine those which are more complex.

A balanced approach requires not only a reasonable variety in content, but also a balance in the organization of the activities. A well organized program should provide opportunities for both competitive and co-operative play. For younger children, the main emphasis should be upon co-operative play, while for older students, teachers should weigh carefully the value of competitive activity. Although it is generally accepted - at least in theory - that appropriate co-operative and competitive activities should be maintained in some harmony, there are still many young people eliminated from participating in physical activities as a result of an overemphasis on competition in schools.

Both intramural and interschool programs, when well organized, can provide excellent opportunities for students to learn skills but a great deal more time and effort must be devoted to the intramural aspect of a total program. The time, energy and facility space committed to intramural activities should be increased on the premise that many more students can be involved in intramural programs than in interscholastic activities.

A physical activity opportunity in a school need not be tied only to the physical education program since there are many ways in which physical activity can be integrated within the curriculum. For example, numerous opportunities can be found for combining music and dance, art and movement, science and outdoor activities, health and fitness. To increase children's physical activity while in school, every reasonable opportunity for integration should be encouraged.

Total Fitness

School programs must address all aspects of fitness such as strength, flexibility, balance, speed, and endurance, if they are to make the maximum possible contribution to the healthy growth and development of children. Nevertheless, there should be particular attention given to the development of children's cardio-respiratory fitness.

The program must be planned to provide vigorous physical activity for the students. Research reports and consultation with fitness experts suggest that to improve cardio-respiratory fitness, a young person under 20 years of age should engage in vigorous daily activity for at least 15 minutes, and during this time, the heart rate should be a minimum of 150 beats/minute (Goode, 1976 and Ness, 1982).

The need for variety in physical activity has been noted previously, but the need for variety must not be allowed to override the need for the physical activity to be vigorous. Current programs should be carefully reviewed to ensure that appropriate attention is paid to improving students' fitness.

Enjoyment

Students must develop positive attitudes toward physical activity if the major goals of a total physical activity program are to be achieved. The activities must be enjoyable if they are to maintain the students' interest

and influence their lifestyles. Positive attitudes toward physical activity will take time to develop and the success of programs for very young children will largely determine the future success of total physical activity programs in secondary schools.

Leadership is extremely important in the development of positive attitudes, and teachers' attitudes toward physical activity will influence the children directly. It is desirable that teachers take part in their own regular exercise programs. It has also been found that teachers develop positive attitudes toward physical activity in school as a result of an involvement in a daily school program (Scarborough Report, 1975).

Adequate Time

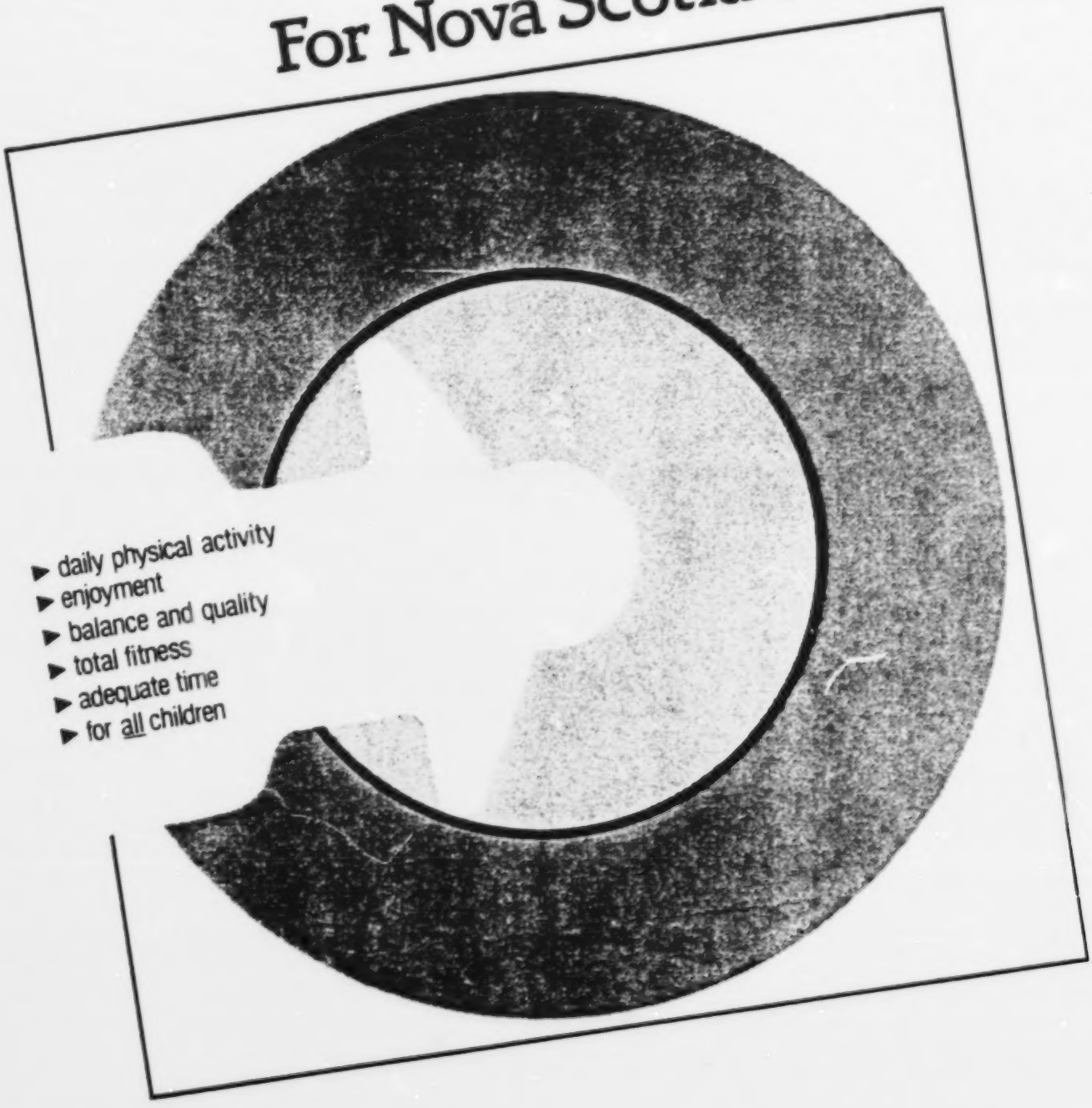
There are many curricular demands placed upon the time that children spend in school, and any proposal for using that time must be weighed carefully in terms of the expected benefits. There is reasonable evidence to suggest that time devoted to physical activity can contribute to the overall effectiveness of the school program. The attentiveness of children and the efficiency of their learning vary throughout the school day, and it has been documented that the time taken for physical activity can be beneficial to children's learning (Scarborough Report, 1975). Schools with comprehensive physical activity opportunities report that teachers are able to complete normal units of work without sacrificing academic performance (Shepherd et al., 1982).

An evaluation of the academic achievement of children involved in the Harbour View Physical Education Project, Dartmouth, Nova Scotia, also supports the conclusions noted above (Murphy and Maillet, 1981). Children in grade levels four to six were able to maintain their levels of academic achievement while participating in a program of increased physical education.

In the early 1950's, physicians and teachers in Vanves, a suburb of Paris, became concerned with the disproportionately small amount of time available to physical activity for elementary school children. They instituted a program of having one-third of school time devoted to physical activity. Essentially, the mornings at the school were scheduled for academic subjects, and each afternoon was spent in art, music, and physical education. After ten years, they concluded that the children in these experimental classes were generally healthier, happier, keener, and had fewer discipline problems than students in the conventional program. The children in the experimental groups also achieved as well or better on academic tests.

In 1973, the North York Board of Education tested approximately 550 elementary children in grade levels 1, 3, and 5 to evaluate a daily physical education program. Not only did children make excellent gains in psychomotor skills, but the children achieved or exceeded expected academic gains over the life of the daily physical education program. In general, the program was thought to have a positive overall effect on the growth of young children. (Brenner, 1973).

A Target For Nova Scotia Schools



The members of the task force recognize that there are some severe limitations which restrict the scheduling of senior high physical education. In many schools it is not possible to offer regular physical education classes for all students in grades 10, 11, and 12. After reviewing what is taking place in other Canadian provinces and studying the senior high curriculum in Nova Scotia, it seemed necessary to propose a special plan for senior high schools.

The plan outlined below appears to be the best approach at this time. Promotion of further program development and evaluation is needed, however, in order to identify other approaches for certain schools, particularly junior-senior high schools, and senior high schools with large enrolments, where it would be difficult to implement the program outlined here.

A compulsory credit program should be provided likely for all senior high students. In many schools this program would probably be scheduled at the Grade 10 level, although there is no reason why it could not be offered in any one of the senior years. The major intent of this credit course is to help the senior student develop a personal physical activity program for "life-long activity". Therefore, the major emphasis of the course should be on activity and not on theory. This proposal for a compulsory credit program should be considered when any change in the credit structure is examined.

A school is not, however, fulfilling the criterion of "adequate time" simply by providing a compulsory credit course at one level. In any given year, a large number of senior high students would not be enrolled in the compulsory course. Therefore, the task force believes that school administrators, specialists and all staff members share the responsibility for providing opportunities for students to establish a personal activity program. This program can be developed from intramural clubs and interschool activities offered by the school, as well as from activities scheduled in the community. After determining all the school-community activities available to senior students, the school may wish to offer others which meet particular needs of these students.

In summary, the task force has interpreted ADEQUATE TIME for a physical activity program to be:

(a) Primary to grade 3 - a minimum of 30 minutes each day

(b) Grades 4 to 6 - a minimum of 150 minutes per five-day week

(c) Grades 7 to 9 - a minimum of 150 minutes per five-day week

(d) Grades 10 to 12 - one compulsory credit course plus the elective courses

For All Children

A well-planned program of physical activity should meet the needs of all children, with every student being given the chance to achieve at his or her own level of ability. In particular, more attention should be directed toward providing programs for the physically handicapped, mentally handicapped, the learning disabled, the student with poor motor ability, and those with medical conditions such as asthma, diabetes or hypertension who require an adapted program.

A PROVINCIAL INITIATIVE

Although the criteria for a physical activity program provide a direction for change, it is necessary to foster a provincial climate that is supports physical activity for all children. This report should be regarded as the beginning of a major Nova Scotia initiative to improve opportunities for students' physical activity while they are in school.

A long range plan should be implemented by the Government of Nova Scotia, and it is proposed that this plan include the following programs:

A Publicity Program

A province-wide publicity program should be established to inform Nova Scotians of the need to make physical activity an integral part of daily living. The community should be told the facts about children's health and fitness, and it should be explained that, while the home and the community have important roles to play, the school must lead the way in introducing appropriate physical activity programs.

To convey this message, the Department of Education, in conjunction with other provincial government departments (notably Health, Culture Recreation and Fitness), might make "Fitness and Health of Our Children" a regular theme of public service announcements and advertisements. A related promotion program, initiated by the Department of Education to solicit the support of the entire community, could be very effective.

Radio, television, newspapers, magazines, and other media could be encouraged to carry the message. Business enterprises could support this media campaign by including the message in their advertisements and other promotional materials.

Community leaders and community agencies should also be asked to participate in this publicity program. Organizations such as the Nova Scotia Medical Society, the Nova Scotia Teachers Union, the Nova Scotia Home and School Federation, the Nova Scotia School Boards Association and the Nova Scotia School Athletic Federation should be requested to participate actively in the campaign at a very early stage.

Teacher Pre-Service and In-Service Programs

After a review of current teacher education programs in Nova Scotia, it became apparent that many graduates do not have methods courses in physical education. Despite this, elementary classroom teachers are very often involved in teaching physical education, while in high schools, there are many opportunities for teachers to assist in the various parts of a physical activity program. To meet current needs and the requirements of the new physical activity program, all graduates of teacher education programs must have the opportunity to take appropriate methods courses.

Every teacher education program must include courses for teaching physical education and for providing leadership in school physical activity programs. Prospective teachers must take at least one full course to prepare them for physical education planning and teaching and every graduate who prepares to work in high schools should take at least one course which provides a bacground for leadership in a school physical activity program. The courses planned at the universities and the Nova Scotia Teachers College should not only be concerned with teaching methods, but should also make physical activity an enjoyable experience for teachers-in-training.

Comprehensive in-service programs must also be designed and implemented for teachers who are currently working in Nova Scotia schools. Three professionally-prepared in-service programs, for elementary, junior high, and senior high schools, should be made available to provide practical assistance for teachers. These in-services should illustrate programming alternatives which have been used in similar schools throughout the country, and should give enough information so that district boards and schools can develop their own physical activity programs. Particular in-service attention should be given to programming for exceptional children, intramural organization, fitness programming, elementary gymnastics and outdoor pursuits. Information should also be provided to enable school districts to introduce the program in such a way that public support for the program is encouraged.

Incentive Programs

Senior High Student Recognition

The most recent data collected on the fitness levels of Canadians (Bailey et al., 1982 and Canada Fitness Survey, 1983) suggest that we must be concerned about the young people who graduate from high school. The group most notable for its poor aerobic fitness performance is that of young men and women, ages 20-29. They appear to be at the the bottom of a steep decline in fitness which begins at about 13 years of age.

It seems necessary not only to improve high school physical activity programs, but steps also to encourage students to maintain a personal program of health and physical activity. Therefore, a senior high school student recognition program is proposed to stimulate student interest in personal health and fitness. The intention is not to reward a select few who are excellent performers, but to recognize all those who maintain acceptable personal standards of health and follow a regular personal physical activity program.

The Medical Society of Nova Scotia has already expressed an interest in such an award program. The task force leaves the development of the criteria for recognition and the guidelines to a study group which should be appointed at a later date.

School Recognition

It is not enough to expect that programs will change in schools without some consideratin of factors necessary to effect change. New practices in education have to be tested in the field before they will be adopted. Therefore, research and development must be supported so that new programs, relating to physical activity, can be thoroughly evaluated. The results of program development and evaluation must also be disseminated to ensure that sound innovative programs are adopted.

Where schools are attempting to develop and test innovative approaches to physical activity, support should be available to evaluate and report on the success of the new programs. This support should be in the form of small grants to cover external evaluation and reporting of selected projects. The Department of Education should also publish a regular newsletter which reports on innovative programs in progress and the results of program evaluations. The task force leaves the development of appropriate criteria and guidelines for school recognition to a study group.

Leadership Recognition

The success of the physical activity program in any school depends largely on the nature and quality of its leadership. Teachers who maintain a personal interest in physical activity and provide sound leadership are important role-models for students. It is important to recognize those teachers who do provide outstanding leadership in this part of a school program. It is therefore proposed that recognition be given to a number of teachers each year who have provided service and valuable leadership in school physical activity programs.

The task force leaves the development of appropriate guidelines for this recognition to a study group.

A Closing Comment

The Department of Education, through the Minister and members of the professional staff, should strongly support this initiative to improve the physical activity programs in Nova Scotia schools. Attempts to modify these programs in varying ways should have the co-operation of everyone concerned with curriculum development, as this approach to change is not limited to modifications of the physical education program.

The Department should play a catalytic role in this movement, and its staff should be assigned to update curriculum guides and make relevant print and media materials readily available to schools districts.

It is impractical for the Physical Education Consultant to be directly involved in all in-service programs, but it may be both feasible and desirable for the Consultant to assist designated personnel in each of the district school boards who will then provide the appropriate leadership in their respective districts.

IMPLEMENTING THE RECOMMENDATIONS OF THIS REPORT

To assist district school boards in implementing an improved physical activity program, the task force suggests the following "phase in" options.

OPTION A

Phase I	P,1,4,7,10	- 1984-85
Phase II	2,5,8,(11)	- 1985-86
Phase III	3,6,9,(12)	- 1986-87

OPTION B

Phase I	P-3 1984-85
Phase II	4-6 1985-86
Phase III	7-9 1986-87
Phase IV	10(11-12) 1987-88

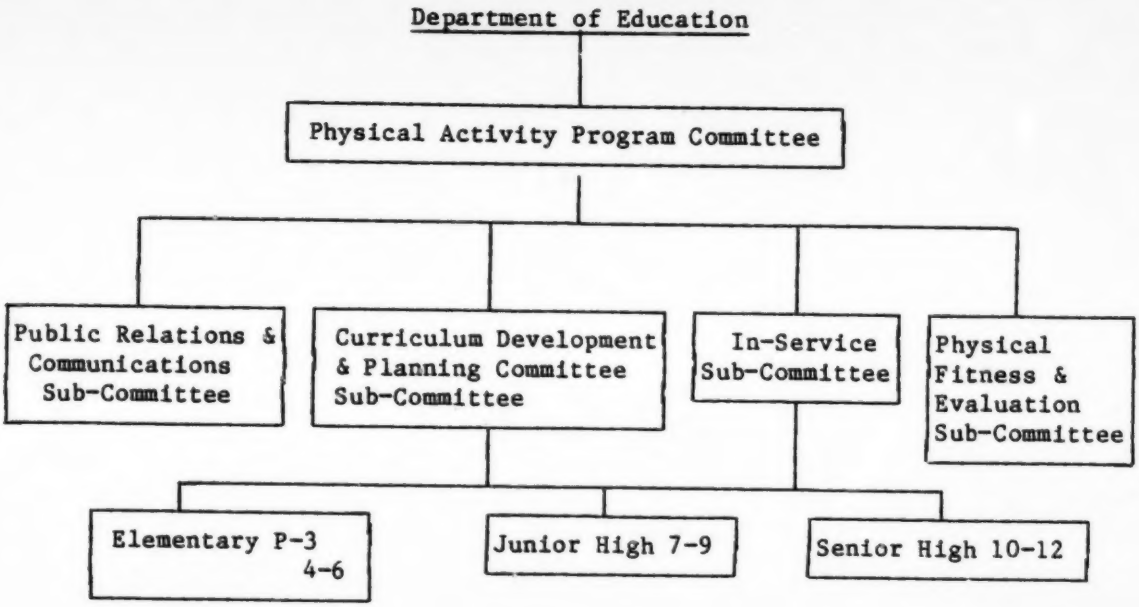
In Option A, selected grade levels from each category (elementary, junior high and senior high) are implemented simultaneously. The junior high program does not have to wait until the elementary program is fully implemented. This option necessitates more intense planning on the part of district school boards, among elementary, junior high and senior high schools and the appropriate staff.

In Option B, implementation is sequential; that is, the upper elementary program is not instituted until the P-3 program is under way and the junior high program is not begun until the entire elementary program is under way. Similarly, introduction of any component of the senior high program is delayed until the elementary and junior high programs are implemented.

The task force suggests the Minister ask the HESS Committee (Health, Education and Social Services), or another appropriate committee, to determine the development of programs for students with special needs.

It is recommended that the Department of Education establish a Physical Activity Program Committee to oversee the implementation of this report and provide appropriate assistance to district school boards for that purpose.

The structure of such a committee could be as follows:



Suggested Guidelines for Committee Structure

(1) The Physical Activity Program Committee would be appointed by the Minister of Education to oversee the activities of the sub-committees as approved.

(2) The Public Relations and Communications sub-committee would begin its activities immediately in preparation for 1984-1985.

(3) The In-Service Sub-committee would be organized and ready to begin work prior to 1984-85 (Phase I).

(4) The Curriculum Development and Planning Sub-committee's main function would be to assist in examining and rewriting existing curricula with an emphasis on daily physical activity. This sub-committee would be further subdivided to supervise the development of appropriate materials in elementary, junior high and senior high categories.

Recommendations:

This list of recommendations summarizes the principal ideas for action which are described in this report.

1. The Department of Education should immediately initiate a provincial plan to develop school physical activity programs which meet the six criteria described in this report. Professional and community groups, such as district school boards, the Nova Scotia Teachers' Union (TAPE), the Home and School Federation, universities, and the Nova Scotia Medical Society, should be asked to participate in this plan.

2. The Department of Education should initiate a co-operative approach with the Nova Scotia Medical Society to establish adaptive physical activity programs for children with special needs.

3. The Government of Nova Scotia should commence a provincial publicity program to inform Nova Scotians of the need to make vigorous physical activity an integral part of daily living - especially for children.

4. The Department of Education and district school boards should initiate a program of high quality in-service experiences for teachers. Programs for elementary, junior high and senior high school should be thoroughly planned and include practical assistance for teachers.

5. The Department of Education should ensure that graduates of teacher education institutions complete at least one full course in teaching physical education, prior to being granted a teaching certificate.

6. The Department of Education should initiate a co-operative effort to establish a senior high school student recognition program to encourage the maintenance of personal health and fitness.

7. The Department of Education should support selected innovative efforts to develop physical activity programs in school districts. This support should be used to ensure proper evaluation and reporting of programs.

8. The Department of Education should initiate a co-operative effort to recognize teachers who provide service and leadership in any major aspect of a school physical activity program.

9. District school boards should be encouraged to have the total physical activity program co-ordinated within each district.

10. The Department of Education should encourage district school boards to co-ordinate with local recreational authoriities the use of school and community facilities.

BIBLIOGRAPHY

Rowland, Thomas W., Physical Fitness in Children: Implications for the Prevention of Coronary Artery Disease in CURRENT PROBLEMS IN PEDIATRICS Ed. Louis Gluck, Vol XI No. 9, July 1981.

Bailey, D.A. Exercise, Fitness and Physical Education for the Growing Child. Canadian Journal of Public Health, 1973.

Bailey, D.A., R.L. Mirwald, R.A. Faulkner, R. Fairburn, and W. Owen, Cardiorespiratory Fitness in Canada: A Current View. CAHPER Journal, 1982.

Shephard, R., et al. The Working Capacity of Toronto School Children - Part II. Canadian Medical Association Journal.

Goode, R.C. The Physical Fitness of our School Children. Education Canada, 1976.

Ness, Gary, Discussions with Nova Scotia Task Force on Daily Physical Education, School of Recreation and Physical Education, Acadia University, 1982.

Sommerville, Robert D., Daily Physical Education and the Principal. CAHPER JOURNAL, 1979.

Scarborough Research Report. Fitness and our youth: an evaluation of activity programs as education aids and promoters of total health. H.J. Dilling and Debrah Weiss, Scarborough Board of Education, 1975.

Shephard, Roy, J. M. Volle, H. Lauallée, R. LaBarre, J.C. Jéquier, and M. Rajic. Curricular Time for Physical Education. JOPHERD Journal, November/December 1982.

Murphy, H. J. and A. N. Maillet, An Evaluation of the Academic Achievement Component of the Harbour View Physical Education Project. Atlantic Institute of Education, March 1981.

Brenner, Lynne, An Evaluation of the PEP Program Phase II, North York Board of Education, June, 1973.

Canada Fitness: Preliminary Findings of the 1981 Survey, Ottawa: Canada Fitness Survey, June 1982

APPENDICES

Appendix A

Ministerial Task Force on Physical Education

Field Testing Questionnaire

The Ministerial Task Force on Physical Education has considered several options which have formed a major part of our mandate of exploring ways to incorporate daily physical activity into the public school system from P-12. The options considered thus far include:

Grade Level	Time Allotment
P-3	Daily
4-6	150 minutes/week
7-9	4 periods/week
10-12	(1) compulsory at Gr.10 and elective in Gr. 11 and 12
	(2) compulsory 3 periods/week for Gr. 10, 11 and 12

These options can be extremely limited by the following restrictions:

a. timetabling
b. facilities (school and community)
c. equipment
d. personnel (specialist and generalist)

The Task Force is seeking information pertaining to the above restrictions in order to field test some of our concerns and more importantly to allow you some input into the decision-making process. With this as background information, would you please take a few moments and respond to the following questions:

1. Are the above time allotments workable at your level? (Please answer by addressing the four restrictions)

_____

_____

_____

_____

_____

_____

_____

2. What further road blocks do you foresee that could hinder the implementation of daily physical education/activity in your school?

3. Can you suggest ways to eliminate the above roadblocks:

4. Are you in favour of the utilization of community facilities as well as the use of support personnel within the community (e.g., golf pro, tennis pro, etc.), as an integral part of the physical education program?

5. What are your thoughts on the recognition of student outside involvement in various sports offered within the community to formulate part of their course mark in physical education? (e.g., X number of hours involved in in the local tennis, golf, curling, skating, etc., would correlate to an allotted number of hours under the credit physical education program).

Appendix B

Questionnaire Responses

1. Are the suggested time allotments workable at your level? (Please answer by addressing the four restrictions).

A. Timetabling

i. Could work in the time especially if we could consider an hour of skating time twice a month during the winter as part of the physical education allotment.

ii. We could adjust our timetable expecially because physical education is important to children at the P-3 level.

iii. At the Grade 10-12 level, option (1) would be more practical from a timetabling point of view; however, we would require more personnel and facilities to teach another 200 students.

iv. It is workable and certainly worthy of more than just consideration.

v. Timetabling is our major hurdle and teachers are expressing concern about not being able to offer Reading and Mathematics daily because of demands from other specialist areas.

vi. The time allotment is feasible if the minimum time for each course as set out by the Department is used (the school day is lengthened).

vii. P-3 is possible, 4-6 would present some difficulty and 7-9 would be a problem due to limitations on space and personnel.

viii. There is no great problem in timetabling if the principal wanted to schedule for more physical education.

ix. The time allotments are not presently workable because the gymnasium is shared by two other schools and the specialist is on circuit.

x. The amount of time is too great in that students must travel a distance to facilities.

xi. We do not have a gym and walk our student to a church hall for their physical education and it is a 5 minute walk. The school day would have to be lengthened to accommodate any increase in time.

xii. At the 4-6 level, 80 minutes is more workable especially with all the subjects currently offered.
At the 7-9 level, prefer 3 periods/week of physical education and 2 periods/week for health.

xiii. We have a flexible timetable and could incorporate some of the suggested changes but we have no specialist at our school.

xiv. There are too many students to allow more than the 90 minutes per six days that we now offer. We only have one physical education person for 425 students.

xv. Timetabling 4 periods per week as such would pose no problems but, with without a gymnasium and a full-time specialist, it is not workable.

xvi. P-3 is workable only if the activity is held within the confines of a classroom.

4-6 is almost impractical because we have no gym.

xvii. We do not have a physical education program in our school, although we have a skating program semi-monthly at the local forum. Classroom teachers periodically do activities and games within their classroom.

xviii. For Grades 10-12, proposal #2 is workable if other schools (elementary) who use our facilities one and one-half days are completely excluded from the facility.

xix. Not really, our physical education program is currently done in a church hall and due to limited time available to use the facility, your time allotments are not workable.

xx. Presently in my junior high, each grade 8&9 class receives one period/week while the Grade 7 receives none. Four periods could be practical but we don't have ample space.

xxi. Timetabling limits our physical education program to two periods per six-day cycle for grades P-6.

xxii. If we had the facilities and personnel, timetabling would not be a problem. However, with the number of subjects the junior high students take, it would be extremely difficult to work in four periods a week.

B. Facilities

i. The time allotments are workable if we fully utilized all available space, empty classrooms, outdoor areas and community facilities.

ii. We could use a portable classroom which is unused part of the time for classes.

iii. "No problems with facilities" was the response numerous times.

iv. Facilities are the main restriction.

v. School facilities would have to be supplemented with those in the community.

vi. School facilities are inadequate in size.

vii. Our facilities are not located within the school.

viii. If we had access to an area gymnasium, the question would become realistic.

ix. We only have classrooms for physical education and this limits the things we can do.

C. Equipment

i. We have very little equipment and would require more.

ii. This is our biggest problem because use of equipment is limited when using a classroom.

iii. There would be more wear and tear on existing equipment and it would have to be replaced more often.

iv. There is a definite lack of equipment.

v. We are a small school so money for physical education is very limited.

vi. Equipment is insufficient to carry out a regular program.

vii. Shouldn't be a major problem given sufficient budgetary allowance.

viii. An initial outlay of equipment would have to be provided to allow us to expand our program.

D. Personnel

i. Personnel are available in our school system for transfer to an expanded physical education program.

ii. There are not enough specialists at the present time.

iii. Currently, classroom teachers provide the service.

iv. We need additional staff.

v. We have no specialists and teachers must do any physical education the students receive.

vi. We only have one physical education person for 425 students.

vii. Our physical education specialist must be shared with several schools.

viii. Specialists and generalists could be used to meet the time suggestions.

ix. Outside personnel would have to be used as present staff (including physical education) teach a full load.

x. Personnel shouldn't be a problem but money to pay these extra people would be.

xi. We have no specialists and none of the staff have any special training in physical education.

Ques. 2 <u>What further roadblocks do you foresee that could hinder the implementation of daily physical education activity in your school:</u>

i. Lack of administrative and community support.

ii. Serious scheduling problems.

iii. The classroom teacher will have to take on the extra duty to bring this idea to reality.

iv. An out-of-gym program would have to be developed.

v. We may have to look at extending the school day with attention to problems with busing and, as well, if out of school facilities are to be used, considerable expense would be incurred, especially in transportation.

vi. Apathy and misunderstanding by staff, parents, students and school board members.

vii. Teachers must see and realize the value of a daily activity experience.

viii. The minimum time allotments, as suggested by the Department of Education, do not provide sufficient time for any students.

ix. Teacher and parent reaction to a further erosion of time taken away from academic subjects.

x. The time factor must be considered. How much time can one take away from other subjects?

xi. Transportation, organizations and adequate outside personnel to assist in the program.

xii. The lack of gym facilities attached to the school building itself would hinder the development of a daily program.

xiii. Attitude of principals and academic teachers.

xiv. Specialist programs are cutting into class time so much that it is a problem to get the academic program done well.

xv. It is not desirable to have it daily because we find it more efficient time-wise to schedule double periods.

xvi. Teacher cutbacks in each system.

xvii. It would involve a new attitude in timetabling.

xviii. Money appears to be a major roadblock. Will there be extra money available for this new program?

xix. Additional storage space for expected equipment.

xx. A lack of student interest as you get into the higher grades. Physical education should start as early as possible in a child's school and if the program is to diminish, it should as the child moves into the higher grades.

xxi. Some expertise in setting up a program (i.e., physical education person to act as a resource teacher).

Question 3-Can you suggest ways to eliminate the above roadblocks?

i. It would have to be part of the "Core Program".

ii. Have people come in from the community who have expertise in certain areas of physical education.

iii. The Department should maintain more resource personnel and provide more money for an expanded physical education program so children can have more access to a program stretching from P-12.

iv. Develop a good workable program for the classroom teacher, something more than a kit.

v. More pressure must be exerted on the "powers that be" to provide adequate facilities in every school so that physical education can be offered in every school, no matter how small.

vi. Make more funds available for physical education.

vii. We need the resources of a specialist teacher.

viii. Have college students assist the program and make that part of their course of study.

ix. The construction of a gymnasium, an increase in the per student unit funding to be allotted specifically to this end and possibly the use of buses through provincial funding to make use of other community facilities, and soon.

x. A gymnasium has been proposed for our school; once constructed, most problems would be minor.

xi. Reorganize the thought process in regard to integrating of physical education with other subjects.

xii. Need massive in-service and workshops.

xiii. Convince the public at large that additional physical education is a help to academic achievements in other areas.

xiv. Integrate physical education into other subject disciplines.

xv. Re-alignment of the course structure at the senior high school.

xvi. Restructure the percentages of time allocated to each subject by placing more emphasis on physical education.

xvii. Good public relations and staff communication should be involved in enhancing an awareness of the importance of physical activity.

xviii. Move away from the traditional five-day cycle.

xix. Timetable seven courses, six periods per week instead of the present six courses, seven periods per week.

xx. Minimize or eliminate study periods and provide activity periods.

Question 4. Are you in favour of the utilization of community facilities as as well as the use of support personnel within the community as an integral part of the physcial education program?

i. Yes, but a block of time is required to transport students to and from the activity.

ii. Much time is lost in travelling to a community facility. The success of using support personnel from the community would depend on person doing the job. We have used volunteers from the community to do physical education with our students. You have to get the right people who can handle kids.

iii. Scheduling is difficult for us to use any outside facilities and we are crippled by transportation facilities.

iv. Presently it constitutes part of our program but we must be careful who we select as resource personnel.

v. Yes, but not to the extent whereby physical educators will be eliminated.

vi. Most all provincial and national sport associations provide support to this avenue.

vii. There needs to be more co-operation between schools and recreation departments.

viii. This sounds great but provide a good working plan to make it work without sacrificing our main goal of the academics ... we are presently being criticized for not fulfilling our mandate.

ix. Let's do it on a trial basis initially as a provincially funded program.

x. Yes, provided the transportation and the legal aspect are covered by the school board.

xi. Yes, but community facilities must be available at a nominal fee.

xii. Where possible and where necessary.

xiii. Yes, as long as the support personnel have training in teaching methodology.

xiv. Yes, as long as it would be a "support" program.

Question 5 - What are your thoughts on the recognition of student outside involvement in various sports offered within the community to formulate part of their course mark in physical education.

i. This idea not acceptable because it is too difficult to coordinate, there is no standardization of performance and it is hard to assess the quality of experience offered by non-school personnel.

ii. Tremendous idea!

iii. There is merit in a program of this type as long as it is evaluated regularly and that a particular skill program is developed for each category.

iv. No, it would not work at the elementary level.

v. My first thought on the question is that it would be a nightmare, partly due to the very limited time that a physical education teacher has with his students.

vi. I think it would be tough to coordinate such a scheme.

vii. The support personnel within the community would have to conform to all the aims and objectives of the school physical education program to ensure that student assessment was valid and realistic.

viii. It must be subject to strict controls and monitored regularly.

ix. This sounds great although children of middle upper class parents would have a greater opportunity of taking advantage of this while students of lower socio-economic groups could be penalized through no fault of their own.

x. I certainly approve of this provided certain guidelines are established.

xi. I think that this would certainly alleviate some of the problems caused by your four restrictions in Question 1. The only problem I see would be in having the community people evaluate the students.

xii. This would seem to give an unfair advantage to a privileged few in many cases.

xiii. If wisely managed, I believe this could be a valuable part of an overall physical education program and in many areas if they couldn't do this, they would have no program at all.

xiv. May sound good in theory but is it practical? Should the English teachers award marks for students who watch television dramas or the math teacher award marks to the student who is fortunate enough to have a home computer.

xv. Are you not using this "course mark" as a bribe to get children involved in out-of-school physical activities? Why the hangup on course marks. Let's develop physically and mentally able young people.

xvi. This pertains to a high school and since this is an elementary school, the above would not be applicable.

xvii. I agree with the suggestion as we should encourage our senior students to get involved in community sports both as participants and minor officials and coaches of minor level teams.

xviii. Give credit from any area of effort as long as it can be tabulated and documented.

xix. I strongly believe the school must have control over the event before recognition can be considered. If this is the case, the after school activity would be treated similarly to band (i.e., performances, concerts, etc.) But this only supplements the in school program.

xx. I would be in favour of such a system if an appropriate supervisory and evaluation scheme is worked out.

xxi. Great idea - school and community should pool their resources for the betterment of the students.